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26 August 1964

MEMORANDUM FOR: Chief, Production Services Division

ATTENTION : Chief, Photographic Laboratory Branch

THROUGH : Assistant for Plans and Development

SUBJECT : Photo Devices Incorporated, Cut Paper Processor

1. On 7 August 1964, a meeting was held with Mr. Ernest P. Taubes of Photo Devices Incorporated at Rochester, New York, as requested by PSD. The subject for discussion was the Cut Paper Processor that this company has developed. This company has now entered into the processing field and the processor demonstrated was their first model.

2. At present a processor accommodating widths up to twelve inches is available. Six and eighteen inch width capability processors will be manufactured in the near future. The twenty-inch width processor can be custom built at a cost of approximately $14,000 and with a delivery time of 90 days. The model demonstrated consists of developer, fix, and wash sections and a drying unit and was most suited to roll paper input. In the processor demonstrated, the paper sticks to the rollers and becomes creased in the drying unit. A paper transport would have to be substituted for the present drying unit in order to eliminate this deficiency. A separate dryer would then be required.

3. Some of the characteristics of the processor are as follows:

a. Speed range 0.5 to 5.0 feet per minute
b. Temperature range up to approximately 120°F
c. Preheat capability for solutions when processor is in a standby state.
d. One developer section, one fix section and two wash sections
e. Present distance between rollers is five inches; this will be increased to eight inches in succeeding models to provide for a longer development time.
f. Approximate processor dimensions are: 39" depth, 16½" high, 41" wide.

g. A stand is provided to increase height to approximately four feet.
h. The plates between which paper is passed by the rollers are separated by about 3/16". They are constructed so as to provide an even flow of developer, fix, etc., around the paper to provide for proper processing. Although these plates are stainless steel in the original design, production model plates will be made of plastic.
i. Squeegees are provided to prevent flow of developer, outside of the developer unit.
j. Rollers are precisely aligned to preventing canting of paper during travel from one section to another. Rollers are spring loaded and easily removable.
k. Thermometers, inserted into the tank through the front cover plates of the processor, indicate temperature of the developer and fix solutions.
l. The processor, as presently configured, can be used only with roll paper feed under daylight conditions.
m. Splash pans are provided to prevent aeration of developer and fix solutions.
n. Capacity of developer and fix reservoirs is approximately one gallon. The level can be checked by looking at a glass level located behind the sump cover in front of the processor. Petcocks were provided for draining the developer and fix reservoirs.

4. Since no drawings or brochures were available, I have made a sketch showing the entire processor and the flow patterns of the fluid during processing.

5. In conclusion, it is my opinion that the Photo Devices Cut Paper Processor will not meet the requirements of PSD. PAR 215, of the Eastman Kodak Contract AL-14, will result in a self-threading photographic processor capable of processing cut sheets up to twenty-inches wide. General assembly and approximately 50% of the subassemblies have been completed as of 10 July 1964. It is therefore suggested that this equipment being developed under PAR 215 be considered instead of the Photo Devices processor.

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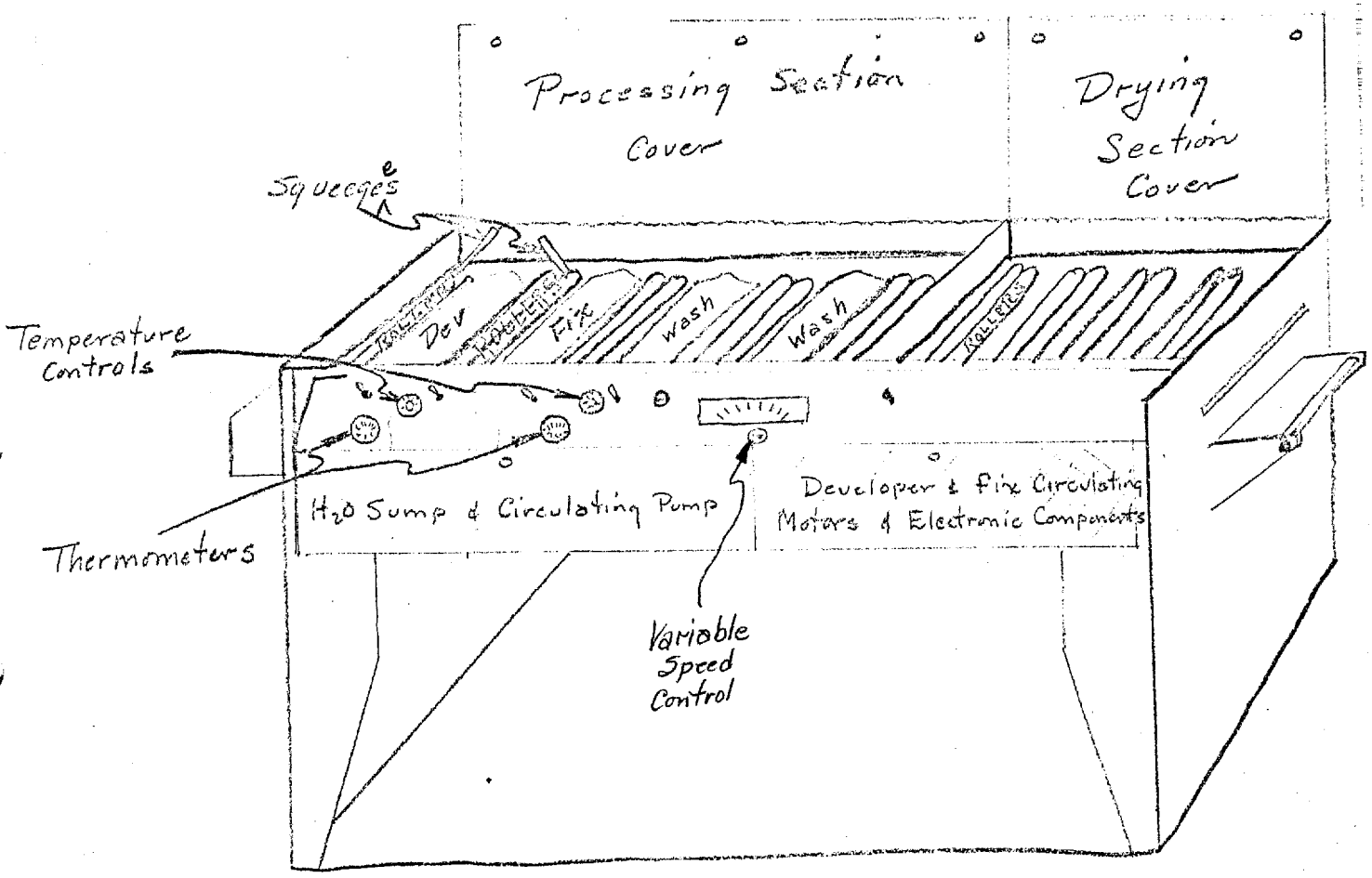
[redacted]
Development Branch, PSD

Enclosure

Sketch of Photo Paper Processor



Detail of Section Plates

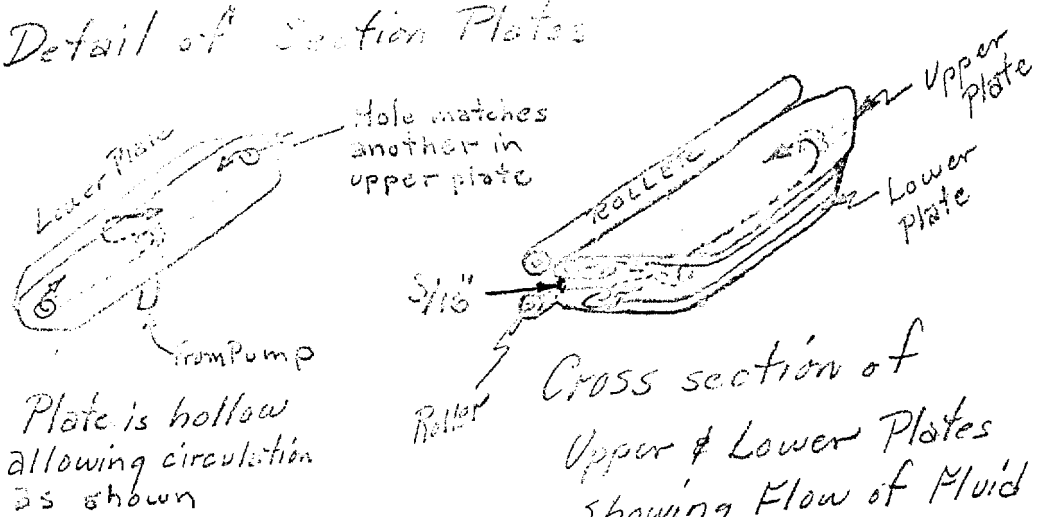


Plate is hollow allowing circulation as shown

Cross section of Upper & Lower Plates showing Flow of Fluid